The paragraph beginning on page 1 just under the heading Field of the Invention, has been

deleted and replaced with the following:

--The present invention relates to specific methods of producing cleated rubber-backed floor mats (such as dust control or rubber mats) through the utilization of the combination of a perforated coated woven fabric article and a cushioned platen liner between the article and the metal platen of an in-line dust control mat manufacturing machine. Such a procedure permits a more efficient manner of producing cleated anti-creep dust control mats than previously followed. In particular, the fabric article is in the form of a conveyor belt and is preferably constructed from TEFLON®-coated woven fiberglass which will not adhere to the tacky rubber component of the target mat and can withstand the extremely high vulcanization temperatures and pressures required during the production of a dust control mat. The cushioned platen liner, which is preferably comprised of or coated with silicon, is utilized as a separator between the metal platen of the manufacturing machine, as well as cushion for the molten rubber as it is pressed through the conveyor belt perforations during vulcanization. Such a cushioned liner material substantially eliminates any problems due to the force of the metal platen against the molten rubber as it passes through the article perforations. The produced mat as well as the woven fabric article/cushioned platen liner combination are also encompassed within this invention.

The second paragraph on page 3 and continuing on to page 4, has been deleted and replaced with the following:

--As noted above, previous methods of providing such cleat features to rubber-backed mats are generally produced through the utilization of a perforated silicon pad which is placed by hand on a conveyor belt on in in-line vulcanization apparatus. A rubber article is then placed on top of a silicon pad, and optionally a fabric pile (such as a carpet) is then placed, again by hand, on top the rubber article. The conveyor belt then transports the entire composite to a vulcanization chamber wherein it is pressed at a pressure of from about 25 to about 40 psi at a temperature of from about 300 to about 400°F for anywhere between about 30 seconds and 20 minutes. After vulcanization, the conveyor belt transports the finished composite (floor mat plus silicon pad) out of the chamber. The floor mat is then removed from the pad and allowed to cool and the pad is moved, by hand, back to a location on the conveyor belt, prior to the chamber, in order for another rubber article to be placed thereon. Such a procedure is labor-intensive and inefficient. However, until now, there have been no disclosures of proper methods to reduce the time and labor required to effectively and efficiently produce rubber-backed cleated floor mats. There have been developments in conveyor belts, particularly those covered with TEFLON® coatings, for utilization in other rubber molding processes. However, there has been no discussion or suggestion regarding the problems associated with cleat-forming perforated conveyor belts in the past. In light of the above, it will be appreciated that there is a need for a process and apparatus to efficiently produce cleats within the rubber backing of an anti-creep floor mat. The present invention thus represents a useful advancement over prior practice.--

The paragraph beginning on line 9 of page 6 and continuing on to page 7 has been deleted and replaced with the following:

--Preferably, the perforated woven fabric article of the instant invention is present in the form of a conveyor belt which thereby permits an in-line mat production procedure. In such a form, the platen liner must be utilized under the conveyor belt in order to reduce off-quality cleat production, as discussed below. However, if desired, the woven fabric article may also be a separate article which is cut from a web of fabric which can be placed by hand on a cushioned platen liner and/or on a standard conveyor belt within a mat a manufacturing apparatus. After vulcanization, the finished mat can easily be removed from the fabric article and the fabric article can then be transported to a pre-vulcanization location for placement of another rubber mat component thereon. The preferred conveyor belt of the instant invention must be constructed of material which not only can withstand continuous and/or repeated movement around a rotating drum and through a standard in-line floor mat manufacturing apparatus; such materials (including the cut-out forms of such woven fabric articles) must also be able to withstand the high temperatures and pressures associated with rubber vulcanization. The core material of such a belt or cut-out is thus preferably fiberglass although other materials, such as polyaramids, silicon, and the like, may also be utilized. The belt or cut-out should also be coated with a covering which can also withstand vulcanization temperatures and pressures and not appreciably adhere to molten rubber. Silicon may be utilized for this purpose as well; however, the preferred coating is polyfluoroethylene, also known as TEFLON®, available from DuPont. The preferred conveyor belt (or cut-out fabric) is first produced by taking a woven (or non-woven) fiberglass fabric and coating it with a certain number of TEFLON® layers. Perforations are then cut into

the coated fabric to conform with the desired shape and orientation of ultimately formed cleats on the target floor mat article. Then, the cut fabric is coated with a few more layers of TEFLON® in order to insure the potentially frayed fibers of the cut fiberglass will not interfere with the eventual removal of the target floor mat article from the belt surface. If such frayed fiber ends were not coated themselves, they could adhere to the mat and produce aesthetically displeasing results. The coated fabric, and thus the belt itself, may have a thickness of from about 1/64 inch to about 1/4 inch, depending on the desired size of the ultimately formed cleats. The thickness of the fabric (belt) dictates the length of the projected cleats from the rubber surface of the mat article since, upon melting during vulcanization, the rubber will become forced through the perforations of the belt a distance roughly the same as the belt thickness. Preferably, the cleat lengths are from about 1/64 to 1/4 inch, more preferably from about 1/32 inch to about 1/8 inch; most preferably about 3/32 inch.--

The paragraph beginning on line 19 of page 8 and continuing on to page 9 has been deleted and replaced with the following:

--In general, it has been discovered that the platen liner should be present to avoid the creation of "flared" cleats in the final mat product. Such a problem is caused by both the lack of adhesion between the molten rubber and the TEFLON®-coated fabric surface as well as the force of the metal platen on the molten rubber forced through the fabric perforations. Without a cushioning platen liner, when the vulcanization chamber presses down on the mat article, the rubber, upon melting, is forced through the perforations into the metal platen. The force of the stationary metal platen then forces the rubber back toward the belt and rubber article; however,

the molten rubber will seek the path of least resistance rather than returning through the perforation it came originally. Without the adhesion between the fabric and the rubber, the rubber will easily move between the fabric and the platen. In such an instance, upon exiting the vulcanization chamber, the mat article is not easily removed from the belt (since the rubber forms "hooks" on the underside of the belt). The resultant mat article thus exhibits aesthetically displeasing cleat formations which themselves possess suspect effectiveness as preventing slippage or creeping of the mat when placed on a protected surface. Hence, it was discovered that in order to provide such an efficient procedure of in-line cleat forming for floor mat articles, a cushioned platen liner was required to separate the fabric article (belt) from the metal platen and to provide cushioning of the rubber to prevent re-forcing back toward the belt itself during vulcanization. However, such a platen liner may not be required when a cut-out article is utilized to produce the desired cleats, most notably when the conveyor belt itself (which may be coated rubber, or other fabric, for example) within the mat manufacturing apparatus provides the necessary cushioning effect; but, other times there will be a need to utilize such a cushioned article to reduce the production of off-quality cleats.--

The paragraph beginning at the first line of page 10 has been deleted and replaced with the following:

--When present, the platen liner preferably covers the entire area of the metal platen over which mat articles will be placed. Preferably, the platen liner will possess a modulus of from about about 40 to 70 on the Shore A Hardness Scale in order to provide the necessary cushioning effects for proper cleat formation. Preferably, the modulus is about 50 on the same scale.

Furthermore, the platen liner must be able to withstand the high temperatures and pressures associated with rubber vulcanization. Thus, the liner must be constructed from material which possesses both characteristics. The preferred material is a rubber coated with silicon (available from Taconic, for example) which exhibits a Shore A Hardness of about 50. However, the liner may also be constructed from other heat-resistant materials which have been incorporated within flexible fabrics, rubber, and the like, and/or alternatively coated with a heat-resistant material, such as TEFLON®, silicon, and the like. The thickness of such a liner is not of great importance, although, the thicker the better (for cushioning purposes). The utilization of too thick a liner will not seriously impact the effectiveness of the perforated conveyor belt in producing the desired cleats; however, as silicon liners are rather expensive, the thickness should be dictated primarily by cost versus available cushioning characteristics. As such, a thickness of from about 1/64 inch to about 1/2 inch is preferred; 1/64 to about 1/8 inch more preferred; and 1/64 inch to about 1/32 inch most preferred.--

The paragraph beginning on page 11, just under the heading Detailed Description of the Drawing, has been deleted and replaced with the following:

--Turning now to the drawing wherein like reference numerals designate like components in the various views, in **FIG. 1** there is shown in profile the composite of different utilized components for production of the inventive floor mat article **10**. In the illustrated and preferred practice, a rubber mat backing sheet **12** is covered with, at least partially, and attached to (during vulcanization) a pile fabric **14** to form the desired floor mat **10**. Cleats **24** are formed in certain locations on the underside of the rubber mat backing sheet **12** through placement of the sheet **12**